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PA-109 Power Adaptor

A. INTRODUCTION

The PA-109 is a transistorized power adaptor designed to supply power to operate an RT-3 transmitter and an RR-2B receiver. The transmitter or the receiver may be operated individually or simultaneously from the PA-109.

B. BATTERIES

1. The PA-109 operates from any 12-volt battery of sufficient capacity. The PA-109 draws about 1.5 amperes from the battery for receiving and an average of 4.5 amperes for transmitting. By knowing the ampere-hour capacity of the battery, the length of time the battery will operate the PA-109 can be determined.

a. A 12-volt car battery having a 60 ampere-hour capacity will operate the receiver for 40 hours; the transmitter for 13 hours; or both for 10 hours.

b. A 5 ampere-hour nickel-cadmium battery will operate the receiver for 3.3 hours; the transmitter for 1 hour; or both for 50 minutes.

C. OPERATION

1. Remove PA-109 cover.

2. Turn XMTR PWR switch to OFF position.

3. Plug receiver and/or transmitter power cables into power sockets provided on the PA-109.

4. Connect RED battery clip to positive terminal of battery. The positive terminal may be colored RED or may be marked + or P.

5. Connect BLACK battery clip to negative terminal of battery. The negative terminal may be uncolored, colored BLACK or may be marked - or N.

6. When operating the receiver only, the XMTR PWR switch should be turned OFF. Turning the XMTR PWR switch ON does not affect the operation of the PA-109 when only the receiver is used, but there is high voltages on the transmitter power socket and caution should be exercised.

7. When both the receiver and transmitter are used, the XMTR PWR switch turns the transmitter on and off. To save battery power, keep the XMTR PWR switch off whenever the transmitter is not needed. However, the switch must be turned on 30 seconds before using the transmitter to allow the transitter tubes to warm up.

D. TROUBLES

1. The PA-109 is designed to operate without maintenance in the field.

2. It is possible that the PA-109 will not begin operating properly if the battery is not fully charged. When it is operating correctly, a high-pitched tone will be heard. If the tone is not heard, the PA-109 has failed to start. To make it start, assuming all connections are properly made, remove both the receiver and transmitter power plugs and listen for the tone. If the tone is then heard, the PA-109 has started and can be used by inserting the RT-3 and RR-2B power plugs while the PA-109 is permitted to continue in operation. Caution should be exercised to avoid operator shock hazards while inserting the plugs.

3. Failure to start may also be due to a blown fuse. The fuse holder is located just to the RIGHT of the XMTR PWR switch.

4. Failure to start may be due to reversal of the battery clips or poor contact with the battery. Battery terminals must be kept clean.

PA-109 POWER ADAPTOR

1. Positive Battery Connector
2. Negative Battery Connector
3. Transmitter Power Switch
4. Fuse Holder
5. Receiver Receptical
6. Transmitter Receptical
7. Top Cover